6*a*–6*i*). Also in California (Meek and Gabb, 'Geol. Surv. California, Palæont.' vol. i. 1864, p. 4, pl. ii. fig. 2), together with *F. gracilis* (fig. 1, p. 4) and *F. robusta* (fig. 3, p. 3). Abich found his *Fusulina sphærica* in the Caucasus: "Vergleich. Grundzüge Kaukas." &c., Mém. phys.-math. Acad. St.-Pétersb. vol. vii. pl. iii. fig. 13. B. F. Shumard found a Permian *Fusulina* (*F. elongata*) in New Mexico and Texas: Transact. Acad. St. Louis, vol. i. no. 2, 1858, p. 297; see also Hayden's 'Reports.' *F. robusta* has also been found in the Upper Carboniferous Limestone of the Southern Alps (Canal-Thal, Uggowitz). Prof. Suess regards it as the same as *F. sphærica*, Abich, and notes its occurrence, with *F. cylindrica*, in Russia*.

There can be little doubt, with the evidence of gradational forms given in the 'Mikrogeologie,' pl. xxxvii., that all these and even other *Fusulinæ* may belong to one and the same zoological species. It is highly probable also that, on strict comparison, one and the same variety would be found to have claim to two or more of the names quoted above and in the foregoing list, made from the 'Mikrogeologie.'

In a specimen of white *Fusulina*-limestone, brought from Russia by the late Sir R. I. Murchison, we have found well-characterized fragments of *Dentalina communis* and a conical *Valvulina*. Such a form, recent, passes into *Trochammina squamata*; and *Tr. inflata* passes into *Lituola*; and *Lituola*, through *Trochammina*, becomes *Involutina* and *Endothyra* †. This low Rotaliiform shell (*Endothyra*) occurs in specimens collected by Dr. Holl from some clay-seams of the English Carboniferous Limestone, in sections of Carboniferous Limestone made by Prof. Phillips, of oolitic Mountain-limestone made by Mr. H. C. Sorby, and in several other collections. As *Valvulina* passes gradually into *Trochammina* by traceable links (Brady), and as the last and *Involutina* are closely related, we are not surprised to find a variety of modifications, even Textilariiform, of this low group in the Palæozoic strata, and, on the other hand, Endothyran modifications higher up in the series, as Ehrenberg's Jurassic "*Borelis sphæroidea*" (IX. A. 1–3) above noticed (p. 257).

Miscellaneous Fossil Foraminifera figured by Ehrenberg in the 'Mikrogeologie.'

1. *Barbadoes* (*late Tertiary*).

Planorbulina (young), *and* Pl. ammonoides (*Rss.*).

* See Suess's valuable note on the distribution of *Fusulina* in America, Europe, and Armenia, Proc. Geol. Inst. Vienna, Jan. 4, 1870; Quart. Journ. Geol. Soc. vol. xxvi. Miscell. p. 3.

† See above, p. 259; also H. B. Brady's notes on these Foraminifera, Ann. Nat. Hist. ser. 4, vol. vi. pp. 50–52.

2. *Nummulitic Limestone, Traunstein, Bavaria.*
   1. Haplophragmium.
   2. Verneuilina pygmæa (*Egger*).
   3. Globigerina?
   4. Operculina ammonis (*Ehr.*).

3. *Pläner-Kalk, Teplitz, Bohemia.*
   1. Lagena (Entosolenia) globosa (*Montag.*).
   2. Polymorphina?
   3. Textilaria globulosa, *Ehr.*
   4. Globigerina.

4. *Hornstone* (*Cretaceous*), *Saxony.*
   1. Textilaria globulosa, *Ehr.*

5. *Coral-rag, Cracow.*
   Nodosaria *and* Cristellaria.

6. *Jurassic Limestone, Kaiserstuhl, Baden.*
   1. Endothyra sphæroidea (*Ehr.*).

7. *Jurassic Limestone, York, England.*
   Nodosaria *and* Textilaria.

8. *Jurassic Limestone, Bath, England.*

9. *Carboniferous Limestone, Witegra, Russia.*
   1. Valvulina (Tetrataxis) palæotrochus (*Ehr.*).

10. *Carboniferous Hornstone of the Pinega, Archangel.*
    1. Fusulina cylindrica, *Fischer.*
    2. —— princeps (*Ehr.*). This is probably the same as *F. sphærica*, Abich, and *F. robusta*, Meek.

11. *Carboniferous Hornstone, Witegra, Russia.*
    1. Fusulina cylindrica, *Fisch.*
    2. —— constricta (*Ehr.*).
    3. —— sphæroidea (*Ehr.*).

12. *Carboniferous Hornstone, Tula, Russia.*
    1. Nodosaria? index, *Ehr.*
    2. Fusulina cylindrica, *Fisch.*
    3. —— palæosphæra (*Ehr.*).
    4. —— labyrinthiformis (*Ehr.*).
    5. —— palæophacus (*Ehr.*).
    6. —— palæophus (*Ehr.*).
    7. Textilaria bursigera, *Ehr.*
    8. —— falcata (*vel* recurvata), *Ehr.*
    9. —— lunata, *Ehr.*

10. Valvulina (Tetrataxis) palæotrochus (*Ehr.*).
11. Endothyra antiqua (*Ehr.*). Possibly the same as *E. Bowmani*, Phil.

We have now finished the critical examination of the illustrated Foraminifera so liberally and magnificently set forth in the 'Mikrogeologie.' There remain, however, some equally beautiful drawings and coloured engravings of Foraminifera and their internal casts in the 'Abhandlungen' of the Berlin Academy, illustrative of the great microscopist's researches in green sand resulting from the infillings of these minute shells and other little cavernous organisms and the subsequent decay of the enclosing tissues, and of his successful work in the artificial production of analogous casts. In the 'Monatsberichte' for 1858 are still later researches on such siliceous casts, with some illustrations. We proceed, therefore, with the examination of these plates, as part of the *Miscellaneous Fossil Foraminifera* figured by Dr. Ehrenberg.

§ 13. *On Green Sand* and its elucidation of Organic Life.* (Abhandl. preuss. Akad. Wiss. aus dem Jahre 1855, 4to, Berlin, 1856, pp. 85–176; read in July and August 1854, and in February, March, May, and July 1855.)

In this memoir are described foraminiferal shells and internal casts from :—

I. & II. 1. Tertiary glauconitic sand of Pontoise, France, p. 104; 2. Tertiary glauconitic sand of Pierre-Laie, near Paris, p. 105; 3. Tertiary green sand from Westeregeln, Hanover, p. 105; 4. Nummulitic Limestone of Traunstein near the Chiem-See, Bavaria, p. 105; 5. Nummulitic Limestone of Montfort, Département des Landes, France, p. 106; 6. Nummulitic Limestone of Fontaine-de-la-Medaille, near Montfort, p. 107; 7. Green sand from beneath the *Zeuglodon*-limestone, Alabama, North America, p. 107; 8. Chloritic Limestone of the Pläner, near Werl, Westphalia, p. 107; 9. Upper Grèen-sand, Compton Bay, Isle of Wight, p. 109; 10. Greensand of Haldon Hill, Exeter, p. 109; 11. Upper Greensand, Handfast Point, Swanage Bay, England, p. 109; 12. Lower Greensand, Handfast Point, p. 110; 13. Gault, Escragnolles, Dép. du Var, France, p. 110; 14. Neocomian, Lales, Dép. du Var, p. 110; 15. Loose green sand of the Middle Jurassic beds near Moscow, p. 111; 16. Compact green sand of the Jura, near Moscow, p. 111; 17. Lower Silurian green sand of St. Petersburg, p. 112.

* See also Prof. J. W. Bailey's Memoir "On the Origin of Green Sand, and its formation in the Oceans of the present Epoch," in the Quart. Journ. Microsc. Soc. no. xviii., 1857, pp. 83–87.